VASEF
Virginia Aviation and Space Education Forum

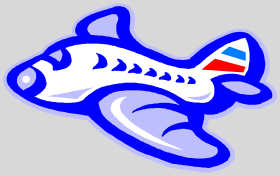
Aviation Education News

A Resource for Educators

Distributed Quarterly to Promote Aviation Education and Awareness in Virginia

February 2001

In this Issue:



Virginia Airport Operator's Scholarship Award Program Applications must be postmarked by February 16, 2001.

Aviation Careers Video

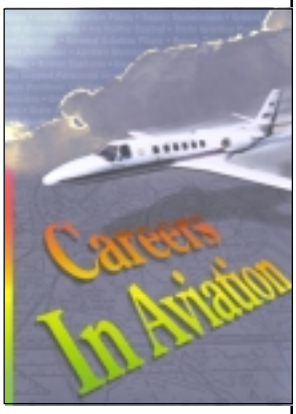
. . . . . Ready for Distribution

The aviation industry is dynamic, challenging, and experiencing a period of growth that offers unprecedented opportunities for young people who want an exciting career.

A question the Virginia Department of Aviation has had to consider over the last several years is how to share information about the aviation industry with students who are making career choices.

Just about a year ago, it was decided that one way to address this question was to utilize the services of Mr. Robert Palmby, a retired air traffic controller living in Minnesota, who specializes in creating aviation career videotapes. Mr. Palmby visited each public use airport in Virginia, took slides, and developed an approximately 20 minute videotape.

Combined with Teachers and Speakers Guides, this videotape is part of a complete package that can be used in classrooms, for public speaking engagements or career days, and can reside in a career center or library for individual use.



It covers aviation careers from airline captains, to general aviation pilots, to repair technicians, to ground support personnel. It provides factual information about educational requirements, job outlooks, and working conditions for careers in: general aviation, the airlines, aircraft maintenance, air traffic control, state aviation positions, and much more.

Dissemination

Today, students often make choices which affect their future careers as early as middle school. For this reason, it was decided that a copy of the Aviation Careers Package should be provided to each middle school in the Commonwealth. These packages will be mailed in late January and early February.

Copies of the package are also being provided to each Airport Manager in the Commonwealth as they are often asked to participate in career days at schools and to host groups of students visiting their airports.

Individual copies of the package will also be made available, as long as supplies last, to additional schools, organizations and individuals for aviation career presentations.

To Receive a Copy of the Aviation Education Careers Package
Contact Person: Betty P. Wilson, Public Relations Division
Mail: Virginia Department of Aviation, 5702 Gulfstream Road, Richmond, VA 23250
Phone: (804) 225-3783, FAX (804) 236-3635, E-Mail: wilson@doav.state.va.us

PRESIDENT'S NOTES

The NASA Langley Research Center's Office of Education (OEd) is working in collaboration with the Virginia Department of Aviation which is an excellent way to maintain two-way communication between federal and state aviation education concerns.

I have just returned from Reno, Nevada where I attended a national AIAA conference. I want to share with teachers ways to make science, mathematics and technology appreciation more fun using aerospace activities. If you become an "Educator Associate" this could bring new energy into your classroom. The benefits are as follows: Participate in local AIAA activities, attend AIAA conferences free, tap into AIAA clearinghouse of aerospace information, gain recognition for efforts in education and, lastly, qualify for up to a $200 grant to push your science, math, or related academic agenda forward. They have developed innovative programs for obtaining an AIAA Foundation Education Classroom Aid Grant. For information contact: Lisa Bacon, 800-639-AIAA, ext. 527 or via e-mail, lisab@aiaa.org.

In working with the AIAA precollege outreach activities, we are proposing a design, build and flight of a balsa wood glider for 6th through 8th grade students. This is the first (or pilot) year to determine its effectiveness. Once it is off the ground, it will be opened nationally. The winners will be treated to a visit to NASA Langley Research Center, where their design will be placed into a Basic Atmospheric Wind Tunnel (BART) to determine it's efficiency. The current guidelines are under consideration at this time. It is anticipated that the students will be required to be mentored by an AIAA student chapter, or high school students with aeronautical knowledge. The intent is for the student teams to demonstrate that they can fly their model in a straight and level manner, verified by video tape, explain in a written report what they learned and define requisite aeronautical terms.

Peter D. Thomas
(Old Dominion University Research Foundation)
Office of Education
NASA Langley Research Center

VASEF AVIATION EDUCATION NEWS is published quarterly in support of aviation education in the Commonweath of Virginia by the Virginia Department of Aviation.

VASEF NEWS Editor: Betty Wilson

Please send story ideas, photographs, calendar events, and other items for possible inclusion to:

Betty Wilson
Virginia Department of Aviation
5702 Gulfstream Road
Richmond,Virginia 23250-2422
(804) 225-3783
(804) 236-3635 (FAX)
wilson@doav.state.va.us (E-mail)
http://www.doav.state.va.us (Internet)

VASEF PURPOSE

The Forum is a non-profit organization to promote and foster aviation and space education among public and private schools, colleges and universities, and community and civic groups, and to promote increased public understanding of aviation and space and their economic, social, and career values in our society and in the Commonwealth of Virginia.

2001 Aviation Teacher's Grant Recipients

Now in it's third year, the Virginia Department of Aviation Teacher's Grant Program is flourishing.

The program is open to teachers at all grade levels and provides up to $250.00 for an aviation-related class project.

Teachers who apply must agree to complete their project before the end of the school year in which they receive the grant, must provide a final report on the program including copies of lesson plans developed, a summary of how well the program worked, how many students benefited from the program, and an itemized list of required supplies.

Seven grants have been funded for the 2000/01 school year. These teachers and their project descriptions follow:

Mr. Durham O. Newman, Jr. of Rockhill Elementary School has planned the "First Great Rockhill Air Show." Part one includes students in art class taking balsa wood plane kits and creating their own designs by modifying them. After modifications have been made, students will paint their aircraft with acrylic paint. Part Two includes 5th grade teachers and students doing projects related to Science SOL 5.1. Students will estimate the distance their plane will fly, predict flight patterns (straight, curved, looped, etc.) and landings. Data will be collected from accurate measurements. Due to their modifications in shape and the addition of weight, students will not know how their planes will fly.

Students will develop ideas by conducting research, making preliminary sketches, constructing models, and flying them. They will learn about cause and effect, the scientific method of trial and error, and recording data for comparison.

Ms. Peggy B. Best of Blue Ridge Elementary School will conduct a unit of study to teach the Virginia Standards of Learning: Social Studies 3.10 - transportation and Math 3.7 - measurement. Students will begin this unit with a discussion of Amelia Earhart and Orville and Wilbur Wright. The class will read several books and view videos about these famous aviators. Upon completion of these activities, students will design a variety of objects and estimate the descent and distance of flights for structures created. A variety of materials will be used, allowing students to better understand how design and materials affect aerodynamics. The class will create graphs to record each different structure's results. In addition, the class will have a guest speaker who is a former student of the school and currently resides in the community to discuss aviation and flying experiences. Concluding these activities, the class will take a field trip to the small local airport to observe the ascent and descent of planes as well as learn about air traffic. Finally, students will write stories relating the information they have learned about aviation to the experiences of Amelia Earhart and the Wright Brothers.

Students will gain an understanding of transportation and measurement by the discussions and hands-on experiences during the unit. They will apply the knowledge learned to write a story that reflects problem-solving.

Mr. Cory Doty of Magna Vista High School plans to use the grant to purchase a radio airplane kit. The kit will be used to stimulate interest in many of the technical parts of the curriculum. The research that goes into the development of any new product, airplane or otherwise, will be one of the keynotes of their studies. This process coincides with the curriculum in the school's CAD, Materials Processes, and Communications classes. The scientific principles of flight and aerodynamics coincides with the math and science courses at the school. Students (grades 9-12) will build and fly the remote control airplane. This is a great hands-on activity designed to introduce students to aviation. This activity also uses math and science to interest the students and cover some valuable SOL's including Newton's Laws of Motion, Newton's Law of Universal Gravitation, Electricity Fundamentals, Radio Fundamentals, Bernoulli Principle, Computer Science, Study of Fluids, People to Machine Communications, and Components of a Communication System. The students will also create an accompanying web site.

Mr. Tucker Swanson, Extension Agent 4-H and **John Barber**, Fluvanna Co. Middle School will use the grant in conjunction with the Adventures in Space Technology 4-H program. Their lesson plan involves breaking flight down into different parts and letting the students discover for themselves.

Propulsion - 1. the flight of a (plastic) soda bottle - compressed air, and 2. the flight of a (plastic) soda bottle - chemical fuel (vinegar/ baking soda).

Guidance - The Great Toy Balloon Race - Students will design a guidance system so that a balloon will travel a distance of 12 feet in a straight line.

Lighter than air flight - Construct and launch a 9 foot model hot air balloon.

Construction and launching of model rockets.

Ms. Susan Walton of Peasley Middle School has a program called "Aviators from Class Aves." Not all fliers are pilots! These lessons propose to capitalize on the interest children have in airplanes and flying and relate this knowledge to the ways the animals fly. Lessons will introduce concepts of flight, beginning with aviation examples, and then will focus on the flight of birds, referencing other flying species also.

Studies will consist of a series of lessons prepared for the longer class times allowed in a block schedule. All of the lessons will include the first Standard of Learning in life science,

Continued on Page 5

National Congress on Aviation and Space Education

It is not too late to sign up for the 2001 National Congress on Aviation and Space Education. The following article, provided by John Salvador, Chief of Aerospace Education for the Civil Air Patrol, has the most up-to-date information about the activities taking place.

The National Congress on Aviation and Space Education (NCASE) is widely recognized and respected as one of the finest aerospace education conferences in the nation, and some would even argue, the world. The Civil Air Patrol and the United States Air Force host NCASE every year. The conference's goal is to help teachers inspire their students to excel in science, math, technology, and other subjects. Presented annually since 1968, NCASE brings together educators to learn from a variety of gifted teachers and motivational speakers. Aerospace-oriented hands-on activities for all grade levels are offered in a variety of breakout sessions. Teachers share new experiences and discover learning tools that help them capture the imagination of their students. Teachers learn how the wonders of aviation and space can be a way to teach ordinary subjects in an extraordinary way. The National Congress offers professional development, personal growth, and unlimited networking opportunities. Several awards are presented during the conference including the A. Scott Crossfield Aerospace Education Teacher of the Year Award, the National Aeronautic Associations's Frank G. Brewer Trophy, the National Coalition for Aviation Education (Merv Strickler) Leadership Award, and the National Congress Crown Circle for Aerospace Education Leadership.

The upcoming 34th annual Congress will be held starting the evening of Wednesday, March 14th and running through Saturday, March 17th 2001 at the Hyatt Regency Hotel in Minneapolis, Minnesota. Guest speakers include NASA astronaut John Olivas; Dick Rutan, test pilot and crewmember on the first around-the-world, unrefueled flight; Bill Lishman, inventor and pilot who is most widely known for using an ultralight (*aircraft)* to lead a flock of geese south for the winter (basis for the major motion picture, *Fly Away Home*); Dr. June Scobee Rodgers, founding chairman of Challenger Center; and several others. The conference will also feature a NASA distance learning demonstration complete with details about how teachers can get NASA educational experts to present a variety of interactive space lessons live in their classrooms. During breakout sessions, over 60 master teachers and aerospace experts from around the world will demonstrate and lecture on topics ranging from NASA's lunar rock/meteorite sample loan program to how to build inexpensive flying kites, balloons, aircraft and rockets in the classroom. Exhibitors will also provide materials, information and displays of innovative educational products.

The National Congress on Aviation and Space Education is certified for 30 contact hours or 3 continuing education units. One hour of Graduate credit will also be available for an additional cost of $50.00 from Embry-Riddle Aeronautical University.

Several field trips will take place on Saturday afternoon including tours of the Science Museum of Minnesota, Northwest Airlines Flight Training Center, STARBASE Minnesota & the Minnesota Air Guard. A St. Patrick's Day parade will be held Saturday night near the hotel. Minneapolis is also home of Mall of America, one of the world's largest shopping malls with over 500 stores! A shuttle to the mall leaves every hour from in front of the hotel.

In summary, teachers attending the 2001 Congress will receive volumes of information and practical hands-on training on how to use aviation and space education themes to teach science, math, technology plus other subjects in their classrooms. How these themes tie in with National Standards will be a major part of the conference. It is going to be a fun and exciting experience... we certainly hope you can join us. For additional details and a registration brochure, go to http://www.capnhq.gov/conference/ or contact John Salvador at jsalvador@capnhq.gov or (334) 953-4252.

National Air and Space Museum Calendar

Wednesday, February 7, 2001
Symposium
"Shaping the Future: A Celebration of Arthur C. Clarke"
"2001: A Space Odyssey" was a milestone film. Directed by Stanley Kubrick and based on the short story "The Sentinel of Eternity" by Arthur C. Clarke, the film carries its human voyagers and their spacecraft Discovery on an epic journey toward confrontation with an unknown cosmic power. In the year forever associated with Arthur C. Clarke and Stanley Kubrick, the National Air and Space Museum and the Arthur C. Clarke Foundation present a discussion of the making of "2001: A Space Odyssey." 2-4 p.m. **Note:** This event is open to the public but tickets are required. Tickets will be available only from Tickets.com beginning Monday, January 15, 2001. Call (800) 529-2440, or visit their web site www.tickets.com. There are no charges from the Smithsonian but a small service charge from Tickets.com will apply.

Saturday, February 10, 2001
Hands-On History Day
African-American Pioneers in Aviation
Experience the days from 1920 to 1950 when African-American men and women pioneered the skies. Hear dramatic stories about the challenges they faced and the successes they earned.
10 a.m. - 3 p.m., Space Hall (Gallery 114)

Saturday, February 24, 2001
Monthly Star Lecture
Weather Forecasting from Outer Space
Did you know that while traveling through space the space shuttle is often bombarded with gamma rays, geomagnetic storms, even tremendous energy from the Sun? These are all examples of weather, not from earth, but from space! Clay Anderson, meteorologist with local NBC Channel 4, reveals an exciting part of his former military career as a "space forecaster" for the U. S. Air Force.
6 p.m. Einstein Planetarium

Wednesday, March 7, 2001
2001 Exploring Space Lecture Series
Is the Universe Fit for Life?
This year's series examines one of the major themes of science in the 21st century: the search for extraterrestrial life. Steven J. Dick, Historian of Science at the U. S. Naval Observatory in Washington, DC, opens the series. His lecture, The Biological Universe: Historical Reflections, traces the roots of the debate from Copernicus to the present, and examines the philosophical implications of a universe filled with planetary systems teaming with life. 7:30 p.m., Einstein Planetarium.

Thursday, March 29, 2001
GE Aviation Lecture
Julie Clark, Aerobatic Pilot
Award-winning pilot Julie Clark is North America's only solo T-34 aerobatic performer. Restoration fans will appreciate that she bought her Beechcraft Mopar T-34 sight unseen at an auction, then personally began the painstaking process of restoring the aluminum aircraft. 7:30 p.m., Langley IMAX Theater.

Aviation Employment Opportunity Fair 2000

The following article, provided by Tidewater Tech Aviation, demonstrates the opportunities available in the aviation industry.

Tidewater Tech Aviation, at Norfolk International Airport, hosted an open house on September 30th that was a monumental success. Companies from across the country and right here at Norfolk International were in attendance accepting applications from professionals in all aviation disciplines including our graduates. US Airways Express, TIMCO, United Express, Continental Express, the Delta Connection, Gulfstream, Northwest Express, Midway, Piedmont Hawthorne, MAE St. Mobile Aerospace, SnapOn, Make-It-Fly, and the Association for Women in Aviation Maintenance were a few of the companies courting our students. These companies offer excellent pay, benefits, and the coveted travel opportunities. Even though hundreds of people from all backgrounds were in attendance, the predominate share of job offers went to our graduates.

Some notable events included raffles for two full sets of FAA Written Tests given away to Tidewater Tech students Ed Sawyer and Dave Reid. One student, Roderick Bridges drove all the way from Atlanta, Georgia to seize the opportunities available. There was even a live remote broadcast by radio station Z104 to provide entertainment.

Over twenty students and all of the staff and faculty volunteered to serve as ambassadors. Prior to the start, they transformed the hangar by setting up over 20 booths. During the fair, they assisted with all the employers and visitors needs. Thanks to everyone who attended, the day was a huge success.

A recent USA Today cover story quoted the Labor Department who says "between 130,000 and 140,000 mechanics now work in the aviation industry and that 40,000 new ones will be needed by 2008 to fill jobs created by retirements, attrition, and industry growth." Tidewater Tech's commitment to the aviation community is recognized nationally. We are constantly striving to make flying the safest and most convenient means of travel by filling this need.

Teachers Grant Recipients cont'd from Page 3

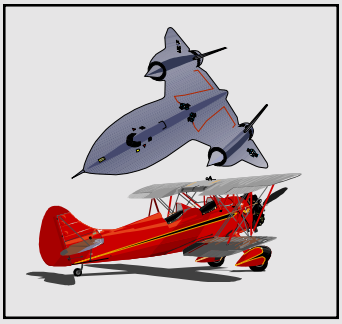
LS.1, which is the experimental design standard. This standard directs students to apply the scientific method by establishing and testing variables, conducting trials, developing models, analyzing and interpreting data, etc.

In the first lesson students will discuss basic principles of flight and examine different types of aircraft. Comparisons will be made to purpose and design -- form follows function. This aligns with life science Standard of Learning LS.12, in which students will examine the adaptations of organisms to biotic and abiotic factors in their environments. Using this structure versus function line of thought, students will design paper airplanes and helicopters suited to various purposes and test their designs. Students will evaluate designs based on those best suited for the intended purpose.

In the second lesson students will compare the types of flight seen in aircraft to the types of flight seen in animals, i.e. hovering, straight line, aerobatics. Students will examine birds and other animals to see what kind of animal wing structure functions in specific types of flight. From these discussions students will design kites to test their hypothesis on wing structure.

In the third lesson students will build their kites.

Continued on Page 7



VIRGINIA AVIATION MUSEUM CALENDAR

February 13, 2001 - 7:00 p.m. Free
FAA Safety Seminar
Topic will be Runway Incursion. Please call (804) 222-7494 (ext. 206) for additional information, or check out www.aea200ea.faa.gov/ea21.

February 15, 2001 -7:00 p.m. Free
Guest Speakers Series
Chief James R. Catrett, US Navy Chief Hospital Corpsman specializing as an Aerospace Physiology Technician, will discuss aviation survival training. He is currently stationed at NAS Norfolk with the Aviation Survival Training Center, one of eight such sites in the Navy and one of four on the east coast.

March 10, 2001 - 10 a.m. Free with admission
Dad's Day Out - Story Time
Join a guided kid's tour of the museum and afterward listen to "Ruth Law Thrills a Nation," by Don Brown.

March 15, 2001 - 7 p.m. Free
Guest Speakers Series
Rob Rivers, NASA research pilot, will discuss the NASA flight test of the Russian Tu-144 supersonic transport or SST aircraft.

March 17, 2001
Ultralight Safety Seminar
If you fly ultralights now or have ever thought of flying one, come out and hear from the experts about safety techniques, maintenance and other concerns. Co-sponsored by the Virginia Department of Aviation. For more information call Carolyn Toth at (804) 236-3637.

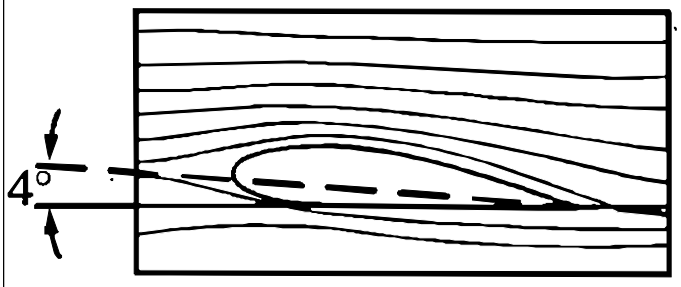
March 24-25, 2001 -9:30-5:00 p.m. - Free with admission
Trains, Planes and Automobiles Model Railroad Show and Sale
View model trains as they travel through detailed dioramas and layouts.

The Virginia Aviation Museum is open daily from 9:30 a.m. to 5:00 p.m. Admission is $5.00 for adults, $4.00 for seniors and $3.00 for youth. It is located at Richmond International Airport, 5701 Huntsman Road, Richmond International Airport, Virginia 23250. For further information on events and schedules, call (804) 236-3622.

Aviation Education Corner

Wind Tunnels

Wind tunnels were the first aeronautics tools to be developed and have been used since the time of the Wright Brothers. The name "Wind Tunnel" is very appropriate. A wind tunnel is basically a long tube or tunnel through which air is blown at controlled speeds. A scale model of an airplane, or part of an airplane is mounted in the tunnel and measurements are taken of the forces and pressures that the model experiences when the air is blown. The basic idea of a wind tunnel is to move wind past a stationary airplane, instead of flying the airplane through the air. This is safer, cheaper, and provides a more controlled environment in which to test. It has been proven that data gathered in this way is able to accurately predict forces and pressures generated during real flight.



Activity from Exploring Aeronautics: A Curriculum in Aeronautics for the 5th through 8th grades (NASA)

Project: **Creating an Airfoil Relief Sculpture**

Most sculptures you probably have seen are free standing. That means the artistic piece can stand by itself. Another type of sculpture is meant to hang on the wall like a painting, but it does not have a flat surface. It's surface is in "relief." "Relief" means that it is raised above a flat surface - it sticks out a little.

You have learned about wind tunnels and wind tunnel experiments. For this project you will artistically show in a relief sculpture, an airplane or airfoil and the airflow around it during a wind tunnel test. Follow the steps below to create your Airflow Relief Sculpture.

1. Gather the following materials:

aluminum foil	"relief" items of your choice:
clay	popsicle sticks
glue	yarn
scissors	string
cardboard piece (25cm x 25 cm)	parts of Styrofoam containers
	parts of plastic containers
	toothpicks
	plastic eating utensils
	bits of wood

2. Arrange the objects as you desire on the cardboard piece. Keep in mind you are trying to depict the airflow around the airfoil or wing during a wind tunnel test.

3. Once the pieces are arranged the way you like them, glue or fasten them securely to the cardboard.

4. Cover the relief (not tightly) with aluminum foil. Carefully rub it down with a soft, damp cloth so that all the shapes underneath it show up clearly.

Averett Aviation Professor Honored by US Secretary of Transportation

Thomas M. Vick, chairman of the Averett College Department of Aviation, has been honored by the Department of Transportation for his outstanding contributions to the field of aviation. US Secretary of Transportation Rodney E. Slater and Acting DOT General Counsel Rosalind A. Knapp honored Vick during a January 11th ceremony in Washington, D.C.

The transportation award was established to recognize outstanding leaders and individual commitment to fulfilling the Department of Transportation's mission with vision and vigilance.

"We at Averett College congratulate Professor Vick on this award as it signifies his commitment to the field of aviation," said Dr. Frank R. Campbell, Averett College president. "Tom's receiving an award from the US Secretary of Transportation clearly indicates a high level of stature and connections in the aviation field."

Vick has worked on developing issues and studies pertaining to increasing airline competition at airports. He also worked with Congress on new legislation and national policies supporting economic growth and airline competition.

Vick has been active in the aviation industry for over 19 years in senior management positions in airports, airlines and government. He has worked for the Federal Aviation Administration in Washington, D.C., since 1996 where he served on the U.S. Secretary of Transportation Task Force on Airline Competition and Airport Business Practices and the Aviation Rulemaking Committee on Fractional Ownership of Aircraft. He was also selected to serve in the FAA Working Group Team for the U.S. delegation for the International Civil Aviation Organization's conference on Economics of Airports and Air Navigation Services held June 2000.

Vick holds a bachelor of science degree in aviation science from Bridgewater State College and a juris doctorate from Massachusetts School of Law. In addition to his experience with the FAA, he had been a visiting assistant professor for Southern Illinois University at Carbondale Aviation Management Program and an adjunct faculty member at the FAA Academy in Oklahoma. He also is an Accredited Airport Executive with the American Association for Airport Executives.

Chartered in 1859 and accredited by the Southern Association of Colleges and Schools (1866 Southern Lane, Decatur, Ga., Telephone: 404-679-4501), Averett College is a coeducational, comprehensive college enrolling more than 2,300 students. Averett College will become Averett University on July 1, 2001.

For more information contact Susan L. Huckstep (804) 791-5684, e-mail huckstep@averett.edu

Teachers Grant Recipients cont'd from Page 5

In the fourth lesson students will test the kites and collect data about the kites. Students will evaluate their designs to determine if the structure performed the expected function.

In closing, students will relate their design and development process to the design and development of aircraft.

Brian Dye of Critzer Elementary School plans a unit to learn about model rocketry. It allows students to experience scientific concepts such as aerodynamics, forces of flight, laws of motion, and stability. Mathematical concepts such as problem solving, equations (velocity and acceleration), and geometry (altitude) are also introduced. Students learn to follow directions, read a diagram, and work carefully while constructing their model rocket. The student will plan and conduct investigations in which distinctions are made among observations, conclusions (inferences), and predictions, etc. The students will investigate and understand that energy is needed to do work and that machines make work easier. The students will read and learn the meanings of unfamiliar words. The students will choose an appropriate measuring device and unit of measure to solve problems involving measurement. The students will collect, organize, and display a set of numerical data in a variety of forms, given a problem situation, using bar graphs, stem-and-leaf plots, and line graphs.

Ronald Shealer of J. D. Bassett Middle School plans to further implement a project called "Into the Air with Math, Science, and Technology." The grant will be used to purchase an electric powered remote controlled airplane kit. The research and development required to successfully construct this kit coincides with the curriculums of all three subject areas (Math, Science, and Technology). The remote control model airplane kit will be built by students in the Technology class. This process will be both video recorded and digitally photographed. These videos and photos will be posted on the Technology class website. The actual process of building the airplane will be accomplished by forming specific department groups with the students. Much like a modern company there will be groups specializing in Research and Development, Electrical Engineer, Quality Control, Maintenance, etc. The airplane can and will be used a multitude of times, from year to year and class to class both for demonstration and for actual student flight training. An extensive list of specific State of Virginia Standards of Learning (SOLs) and Competencies/Tasks will be fulfilled within the scope of the project.

Note: Four additional applicants were awarded grants through the generosity of the National Air Transportation Foundation's "Ace Grants for Teachers" program. These teachers are James Martin, Fran Cleary, Randall R. Roe, and Faith Ballard.

Aviation & Space  Web Sites

Averett College	www.averett.edu
National Air Transportation Foundation	www.nata-online.org
National Congress on Aviation and Space Education	www.capnhq.gov/conference
Tidewater Tech	www.tidetech.com/fixjets.htm
Virginia Department of Aviation	www.doav.state.va.us

SCIENCE MUSEUM OF VIRGINIA CALENDAR

IMAX FILMS:
T-REX: Back to the Cretaceous - thru June 8
Africa's Elephant Kingdom - thru April 27

MULTIMEDIA SHOWS
Journey into the Living Cell thru Feb. 28
The Night Sky - Daily

EXHIBITIONS -
Invasion of the Dinosaurs - Feb. 24- June 3

CARPENTER SCIENCE THEATER COMPANY
Pathways to Freedom - Feb. 6-Mar 8

LIVESKY: Informal "live" planetarium presentation of the month's celestial events. Third Friday of every month.

SKYWATCH: Third Friday of every month (weather permitting) on the front lawn.

24-Hour Information: (804) 367-0000
Box Office: (804) 367-1080
24-Hour Skywatch Information: (804) 367-8277
24-Hour TDD Information: (804) 367-9760
General Information - TDD: (804) 367-6552
Group Scheduling: (804) 367-6552
Home Page: http://www.smv.org

VIRGINIA AIR AND SPACE CENTER CALENDAR

VISITING EXHIBITS:
THE ROBOT ZOO - May 26-September 9
STAR TREK: FEDERATION SCIENCE - January 27-April 30, 2001

IMAX FILMS:
SOLARMAX - thru April 5
DESTINY IN SPACE - thru April 5
ALIEN ADVENTURE - thru April 5
*NSYNC: BIGGER THAN LIVE - Feb. 9 - April 5

SIGMA SERIES LECTURES:
Beyond the Edge of the Sea: Volcanoes and Life in the Deep Ocean - Cindy Lee Van Dover - February 6, 7:30 p.m.
Mars Exploration: Imagined Worlds - KR Sridhar - March 13, 7:30 p.m.
The Chesapeake Asteriod Impact Crater - David Powers - April 3, 7:30 p.m.

Star Station One Education Center - Saturday and Sunday, Noon - 4:00 p.m.

Call (804) 727-0900 for showtimes
Visit the Center's Home Page:
http://www.vasc.org
Visit the Teacher Resource Center Home Page:
http://seastar.vasc.mus.va.us

Calendar of Events

February 6, 2001

Aviation Safety Education Seminar will take place at the Accomack County Airport, Melfa Virginia, from 7:00 - 9:00 p.m. Seminar includes "Runway Incursions." For more information contact Dixie McVey at (757) 787-4600.

February 13, 2001

Aviation Safety Seminar will take place at the Virginia Aviation Museum in Richmond. The seminar is sponsored by the Virginia Department of Aviation, Richmond FSDO, and Virginia Aviation Museum.

March 13, 2001

FAA "Wings" Safety Seminar will be held at the Williamsburg Jamestown Airport beginning at 7:00 p.m. For additional information contact Kim Holland at (757) 229-7330.

March 14-17, 2001

National Congress on Aviation and Space Education will be held at the Hyatt Regency Hotel in Minneapolis, Minnesota. The theme for 2001 is "Science, Math and Technology for Today's Classrooms. For the latest information, including registration information, visit http://www.capnhq.gov/conference.

March 17, 2001

11th Annual Ultralight Seminar will be held at the Virginia Aviation Museum from 9:00 a.m. - 4:00 p.m.

For more events check out:
http://www.doav.state.va.us/calendar.htm.

Aviation Education Supporters:

VASEF projects are funded by our membership fees and by donations from our member organizations. We would appreciate your support through membership in our organization.

_____ Regular Membership $25.00 annually (July - Dec. $12.50)

_____ Non-Profit Organization $25.00 annually (July - Dec. $12.50)

_____ Corporate Membership $100.00 annually (July - Dec. $50.00)

____ New Member _____ Renewal

Date: _____

Name: _____

Name of Organization: _____

Occupation: _____

Address:_____

City: _____State_____ Zip _____

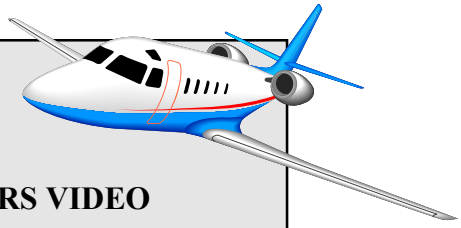
Telephone_____

Please Return to: Tom Tyndall, VASEF Treasurer
5702 Gulfstream Road
Richmond, Virginia 23250-2422

VASEF Aviation Education News
5702 Gulfstream Road
Richmond, Virginia 23250-2422

Presorted
Standard
U.S. POSTAGE
PAID
Richmond, Va
Permit No. 949

Inside:



NEW CAREERS VIDEO

TEACHERS GRANTS AWARDED

Please Post for Teachers